Basin Environmental Service Technologies, LLC

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Effective Solutions

5.6.05
VERBAL OK
TO DELINEATE
TO CR
57

PRELIMINARY SITE INVESTIGATION REPORT
and
WORK PLAN

PLAINS MARKETING, L.P.
Lovington Pump Station
Lea County, New Mexico
Plains EMS # 2005-00015
UNIT D (NW/NW), Section 16, Township 17 South, Range 37 East
Latitude 32°, 50', 30.7" North, Longitude 103°, 15', 45.3" West

Prepared For:

Plains Marketing, L.P.
333 Clay Street
Suite 1600
Houston, Texas 77002

Prepared By:
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P. O. Box 301
Lovington, New Mexico 88260

21 March 2005

RP 920

Ken Dutton
Basin Environmental Service Technologies, LLC

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INTRODUCTION

Basin Environmental Service Technologies, LLC (Basin), responded to a crude oil release for Plains Marketing, L.P. (Plains), located at the Lovington Pump Station on 14 January 2005. The equipment malfunction was repaired and excavation of the impacted soil was initiated and stockpiled on a 6-mil poly-liner.

This site is located in Unit D (NW/NW), Section 16, Township 17 South, Range 37 East, in Lea County, New Mexico (topographic Site Location Map is attached as Figure 1). The latitude is 32°, 50', 30.7" North, and longitude is 103°, 15', 45.3" West. The site is characterized as an operational pipeline pumping station containing various pieces of crude oil pumping equipment. The visually stained area includes the release point and covers an area approximately 15 feet long by 20 feet wide. It is estimated 6 barrels of crude oil were released from the Lovington Pump Station and 0 barrels were recovered.

Plains Pipeline operations personnel marked their respective lines inside the pumping station before excavation activities commenced.

Mr. Larry Johnson, New Mexico Oil Conservation Division (NMOCD), Hobbs, New Mexico District 1 was verbally notified of the release on 14 January 2005. Mr. Leon Anderson and Ms. Myra Meyers, New Mexico State Land Office (NMSLO), Hobbs Office, were notified 14 January 2005. A Right of Entry Permit was not required as the crude oil release occurred in a Plains leased area.

SUMMARY OF FIELD ACTIVITIES

On 14 January 2005, Basin arrived at the Lovington Pump Station crude oil release to repair and contain the crude oil pipeline release under the direction of Plains operations personnel. After repairing the malfunctioning equipment, excavation of the impacted soil was initiated. The visually stained area is approximately 15 feet long by 20 feet wide and is approximately 5 feet below ground surface (bgs) at the release point.

On 26 January 2005, Basin excavated the release point area to a depth of 14 feet bgs attempting to delineate the vertical and horizontal extent of crude oil impacted soil at the release point (see Site Map, Figure 2). Photoionization Detector (PID) readings indicate elevated concentrations of Volatile Organic Compounds (VOC) remain in place. Approximately 75 cubic yards of impacted soil was excavated and stockpiled on-site as a result of this delineation activity.

New Mexico Oil Conservation Division (NMOCD) Soil Classification

Actual groundwater gauging data obtained from the Plains Moore to Jal # 2 remediation site, located less than one-half mile to the south, southeast, indicates the depth to groundwater ranges from 77 feet to 79 feet bgs. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of 10 -19, which sets the remediation levels at:

Benzene:	10 ppm
BTEX:	50 ppm
TPH:	1000 ppm

The above criterion is assumed and may be adjusted based on the actual results of the soil delineation activities.

Distribution of Hydrocarbons in the Unsaturated Zone

The release point and visually stained area has been excavated to a depth of approximately 14 feet bgs and evidence of crude oil impact still exists on the floor at the release point. PID readings indicate elevated concentrations of VOC's remain in place. Approximately 75 cubic yards of impacted soil was excavated and stockpiled on a 6-mil poly-liner.

RECOMMENDATIONS FOR DELINEATION/REMEDIATION

Approximately 75 cubic yards of impacted soil has been excavated and stockpiled on-site resulting from the emergency response and equipment repair. Based on the preliminary soil delineation investigation, the release point will require further vertical and horizontal delineation.

Plains proposes to mobilize a drill rig to install five (5) soil borings to determine the vertical and horizontal depth of the hydrocarbon-impacted soil at the release point as well as one soil boring up gradient, one soil boring cross gradient, and two (2) soil borings down gradient (see Figure 2, proposed soil boring locations). In the event, groundwater has been impacted, proposed monitoring well locations are depicted on Figure 2. Soil boring soil samples will be collected at 5 feet intervals; field screened with a PID, and selected samples will be delivered to a certified laboratory for analysis. The soil samples will be analyzed for BTEX and TPH-GRO/DRO. The soil borings will be plugged with cement at total depth, filled with bentonite chips and water to the ground surface. A remedial work plan will be submitted to the NMOCD, Hobbs District, for approval once delineation of the site is completed and remedial options have been evaluated.

QA/QC PROCEDURES

Soil Sampling

Soil samples will be delivered to Environmental Lab of Texas, Inc. in Odessa, Texas for BTEX, TPH analyses using the methods described below. Soil samples will be analyzed for BTEX, TPH-GRO/DRO within fourteen days following the collection date.

The soil samples will be analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO

Groundwater Sampling

The groundwater monitoring wells will be developed utilizing the Environmental Protection Agency (EPA) protocol of approximately nine well volumes of groundwater or until the monitoring wells are dry using an electrical Grundfos Pump. Within forty-eight hours of development, the monitoring wells will be measured and purged of approximately three well volumes utilizing an electrical Grundfos Pump. Groundwater samples will be collected using a disposable Teflon sampler and the groundwater samples will be stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water will be collected in a polystyrene tank and disposed of at a licensed New Mexico disposal facility. Groundwater samples will be delivered to Environmental Lab of Texas, Odessa, Texas for analysis of BTEX concentrations using the method described below. All samples will be analyzed within approved holding times following the collection date.

- BTEX concentrations in accordance with EPA Method 8021B

Decontamination Of Equipment

Cleaning of the sampling equipment will be the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment will be cleaned with Liqui-Nox® detergent and rinsed with distilled water.

Laboratory Protocol

The laboratory will be responsible for proper QA/QC procedures after signing the chain-of-custody form. These procedures will be either transmitted with the laboratory reports or are on file at the laboratory.

LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this Preliminary Investigation Report and Work Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Service Technologies, LLC, has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC, has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Service Technologies, LLC, has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, LLC, also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains Marketing, L.P. The information contained in this report including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and Plains Marketing, L.P.

DISTRIBUTION

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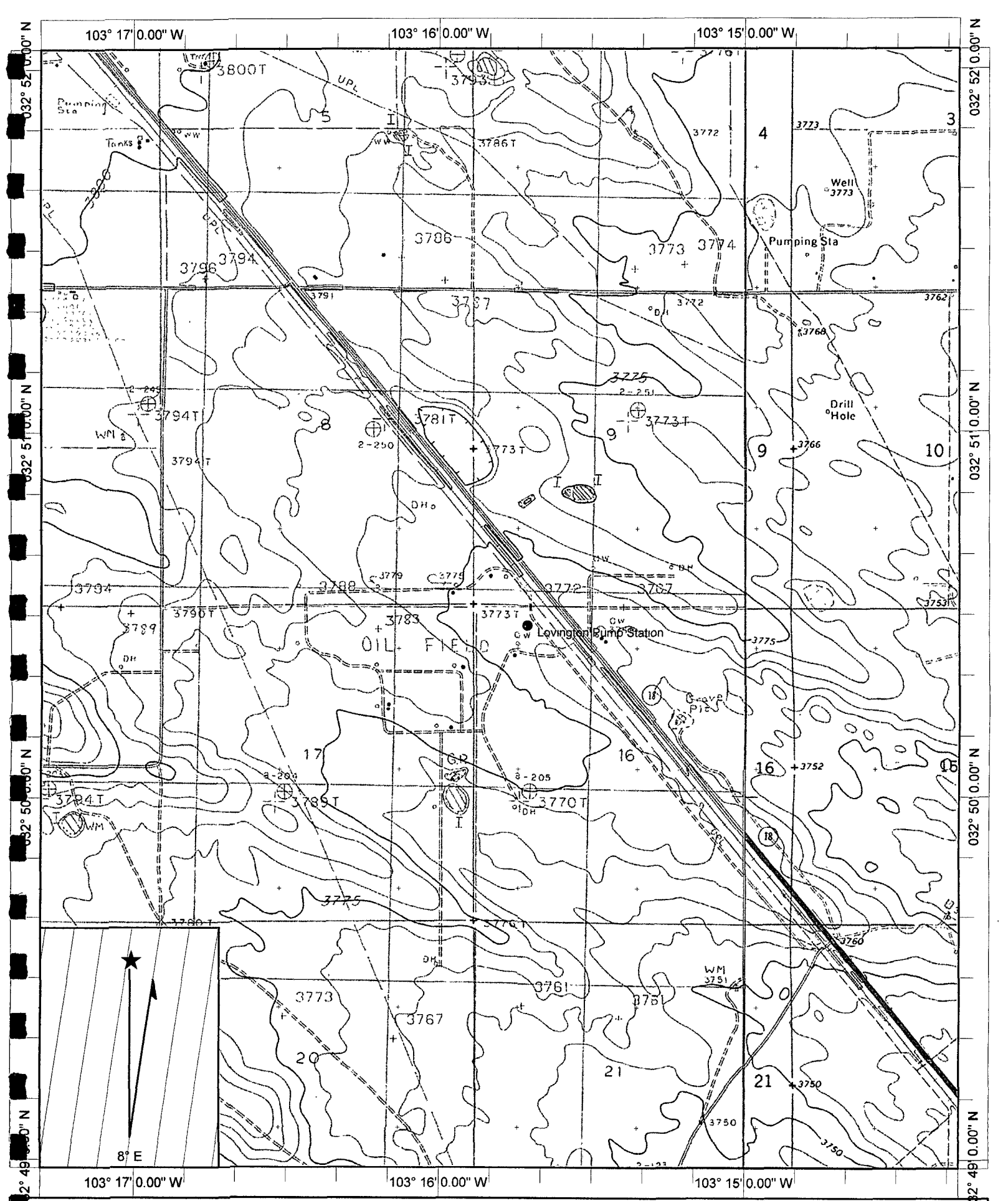
Copy 3

FIGURES

FIGURE 1

SITE LOCATION MAP



Name: LOVINGTON SE
Date: 3/31/2005
Scale: 1 inch equals 2000 feet

Location: 032° 50' 30.99" N 103° 15' 48.6" W
Caption: Figure 1
Lovington Pump Station
Plains Marketing, L. P.

FIGURE 2

SITE MAP

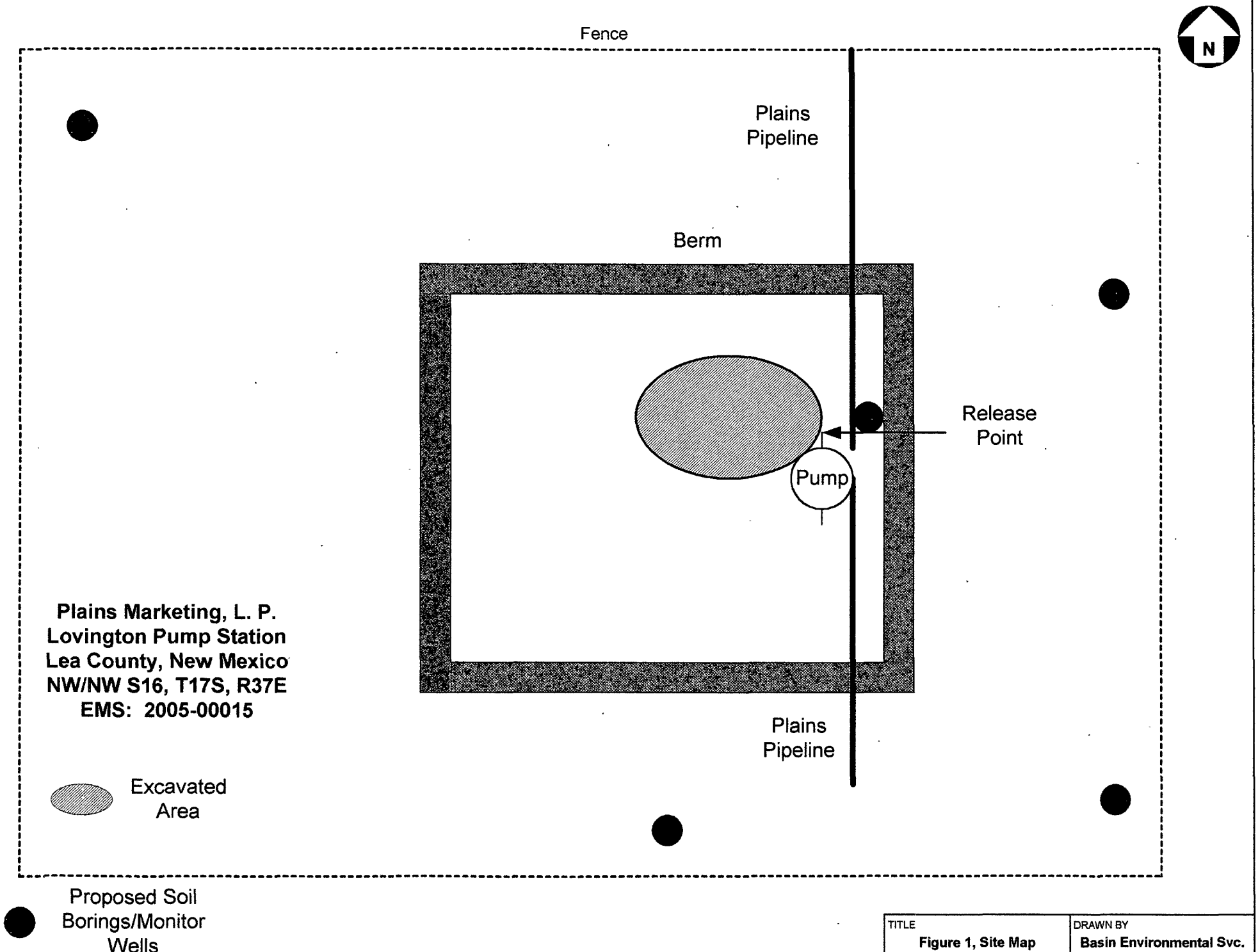
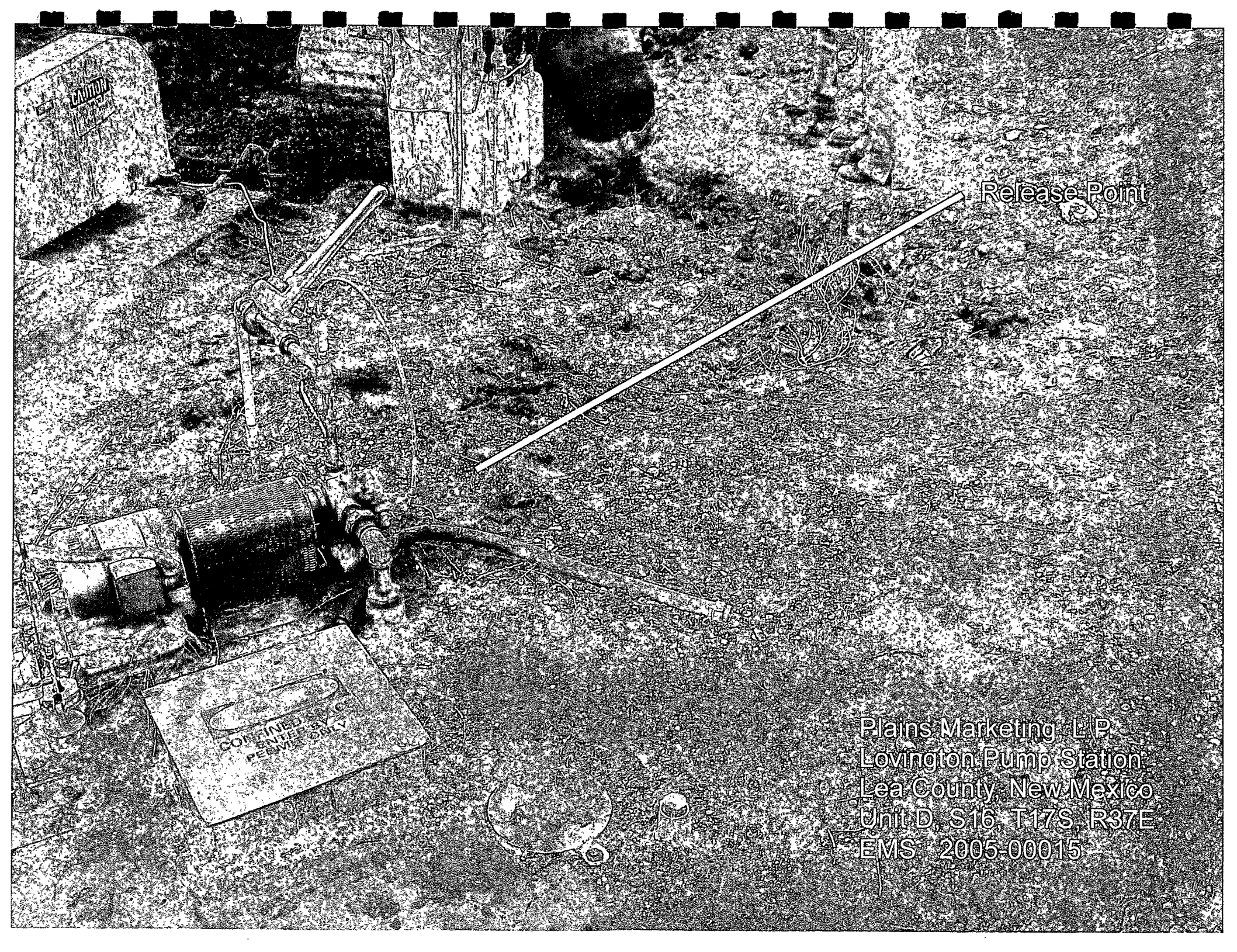
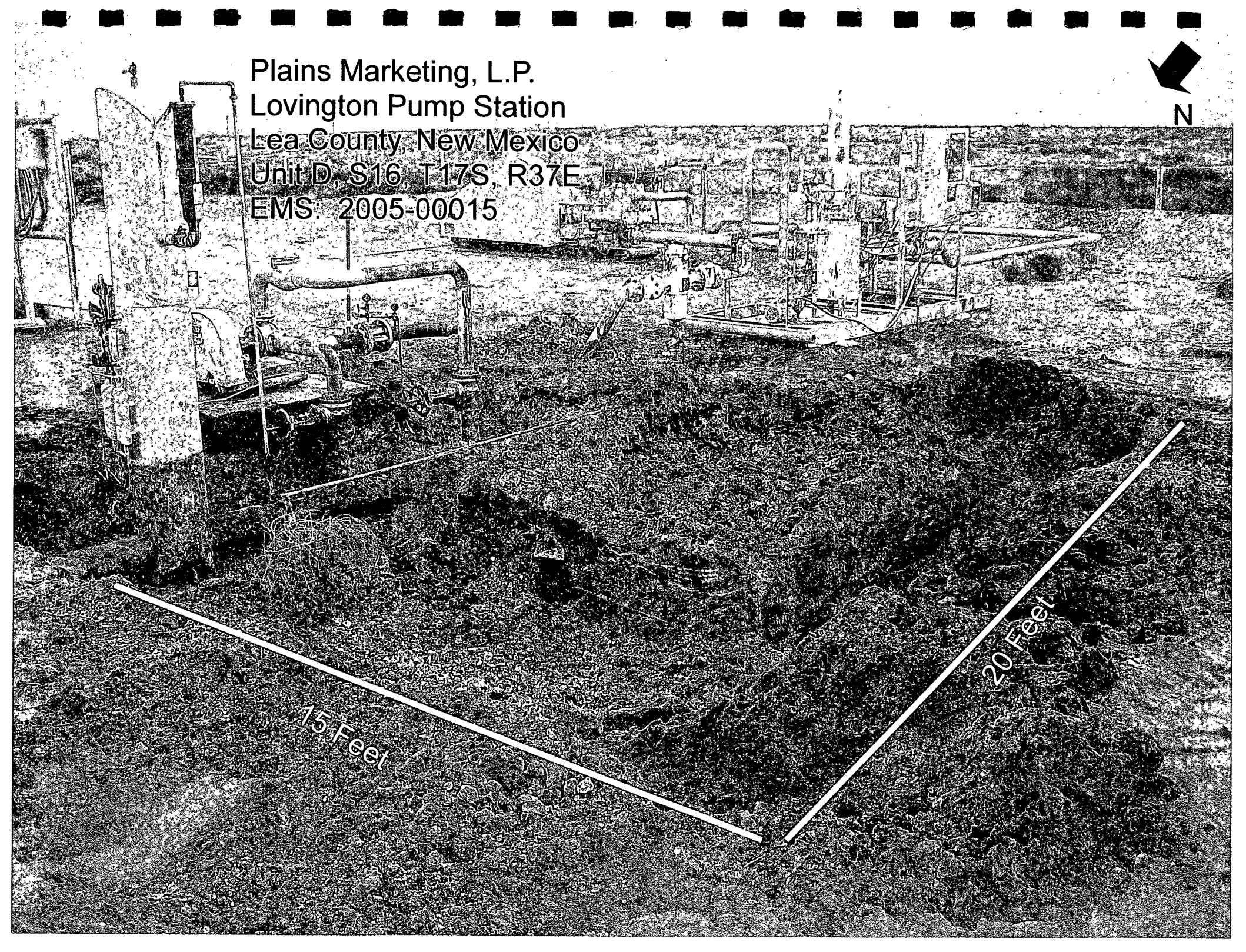

Fence
N
Plains
Pipeline
Berm
Release
Point
Pump
Plains
Pipeline
Plains Marketing, L. P.
Lovington Pump Station
Lea County, New Mexico
NW/NW S16, T17S, R37E
EMS: 2005-00015
Excavated
Area
Proposed Soil
Borings/Monitor
Wells
TITLE
Figure 1, Site Map
Lovington Pump Station
DRAWN BY
Basin Environmental Svc.
kad

FIGURE 3

DIGITAL PHOTOS OF SITE


Release Point
Plains Marketing, L.P.
Lovington Pump Station
Lea County, New Mexico
Unit D, S16, T17S, R37E
EMS: 2005-00015


Plains Marketing, L.P.
Lovington Pump Station
Lea County, New Mexico
Unit D, S16, T17S, R37E
EMS: 2005-00015
N
15 Feet
20 Feet

APPENDICES

APPENDIX A

NEW MEXICO OFFICE OF THE STATE ENGINEER WATER WELL DATABASE REPORT

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 17S Range: 37E Sections: 16

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 01/31/2005

							(Depth Water in Feet)		
Bsn	**Tws**	**Rng**	**Sec**	**Zone**	**X**	**Y**	**Wells**	**Min**	**Max**	**Avg**
L	17S	37E	16				2	40	40	40

Record Count: 2

APPENDIX B

NMOCD C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

FLWJ 05224550 48

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Report

Name of Company Plains Marketing, LP	Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965
Facility Name Lovington Station	Facility Type 4"Steel Pipeline

Surface Owner State Of New Mexico	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	16	17S	37E					Lea

Latitude 32°50'31.2" **Longitude** 103°15'45.5"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 6 barrels	Volume Recovered 0 barrels
Source of Release 4" Steel Pipeline	Date and Hour of Occurrence 1/14/05 @ 08:55	Date and Hour of Discovery 1/14/05 @ 09:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson	
By Whom? Camille Reynolds	Date and Hour 1/14/05 @ 15:15	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

JAN 2005 RECEIVED Hobbs OCD

Describe Cause of Problem and Remedial Action Taken.* Failure of packing on pump caused release of sour crude oil. Pump was repaired. The line has approximately 70 psi and produces approximately 780 barrels of crude oil per day. The gravity on the crude is 35.7 and the H2S content is less than 10 ppm.

Describe Area Affected and Cleanup Action Taken.* The pump was repaired and the saturated soil was excavated. Aerial extent of surface impact was approximately 15 x 20 feet.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Camille Reynolds	OIL CONSERVATION DIVISION
Printed Name: Camille Reynolds	Approved by District Supervisor:
Title: Remediation Coordinator	Approval Date: / Expiration Date:
E-mail Address: cjreynolds@paalp.com	Conditions of Approval: / Attached ☐
Date 1/20/05 Phone:505-441-0965	

Attach Additional Sheets If Necessary